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| EXAMINER |
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PAPER

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* JEFFERY S. BECK,  
GEORGE H. CORRIGAN, III,  
And DENNIS J. SCHLOEMAN

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Appeal 2009-0722  
Application 10/705,301  
Technology Center 2800

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Decided: December 9, 2008

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Before BRADLEY R. GARRIS, PETER F. KRATZ, and  
ROMULO H. DELMENDO, *Administrative Patent Judges*.

GARRIS, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134 from the Examiner's decision rejecting claims 1-8, 11-14, and 23-29. We have jurisdiction under 35 U.S.C. § 6.

We AFFIRM the decision of the Examiner for the reasons expressed in the Answer and below.

*Statement of the Case*

Appellants claim a printhead 240 comprising an internal power supply path 292 and a power regulator 200 providing an offset voltage 214 from the internal power supply path voltage (Figures 5-7; claim 1). Appellants also claim a printhead assembly (claim 13), a method of operating a printhead (claim 23), and a fluid ejection device (claim 28).

Further details regarding this claimed subject matter are set forth in representative claim 1, which reads as follows:

1. A printhead comprising:

an internal power supply path;

a power regulator providing an offset voltage from the internal power supply path voltage; and

multiple primitives, each primitive including:

a group of nozzles;

a corresponding group of firing resistors; and

a corresponding group of switches controlled to couple a selected firing resistor of the group of firing resistors between the internal power supply and the offset voltage to thereby permit electrical current to pass through the selected firing resistor to cause a corresponding selected nozzle to fire.

The Examiner relies on the following references:

|           |                 |               |
|-----------|-----------------|---------------|
| Suzuki    | US 4,514,737    | Apr. 30, 1985 |
| Bohorquez | US 5,357,081    | Oct. 18, 1994 |
| Otsuki    | US 6,145,961    | Nov. 14, 2000 |
| Doluca    | US 6,208,127 B1 | Mar. 27, 2001 |

The Examiner rejects all appealed claims under 35 U.S.C. § 103(a) as follows:

(a) claims 1, 3, 6-8, 13, 23, 26, 28, and 29 over Bohorquez in view of Suzuki;

(b) claims 2, 4, 5, 11, 12, 24, 25, and 27 over Bohorquez in view of Suzuki and further in view of Doluca; and

(c) claim 14 over Bohorquez in view of Suzuki and further in view of Otsuki.<sup>1</sup>

#### *Issue*

Have Appellants shown that Bohorquez's power regulator (i.e., power control 20 of Fig. 3) does not inherently perform the claim 1 function "providing an offset voltage"?

#### *Findings of Fact*

The Examiner finds that "Bohorquez discloses . . . a power regulator (*FIG. 3, element 20*) providing an offset voltage (*FIG. 3: The voltage at the positive input of element 16*)" (Ans. 4).

In this regard, the Examiner concedes that "Bohorquez does not name such voltage as an "offset voltage," [but finds that] such voltage reads on the Appellants' offset voltage based on the similar ways they both are provided and their similar functions to drive printing elements through a feedback amplifier (Bohorquez's element 16, Appellant[s'] elements 106a-n)" (Ans. 8).

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<sup>1</sup> Appellants do not present separate arguments for any of the dependent claims including those which have been separately rejected (*see, e.g.*, App. Br. 15). Accordingly, we decide this appeal based on representative independent claim 1.

*Principles of Law*

"To anticipate a claim [limitation], a prior art reference must disclose [the] . . . limitation . . . , either explicitly or inherently." *In re Schreiber*, 128 F.3d 1473, 1477 (Fed. Cir. 1997).

Although "[a] patent applicant is free to recite features of an apparatus either structurally or functionally [,] . . . choosing to define an element functionally, i.e., by what it does, carries with it a risk." (*Schreiber*, 128 F.3d at 1478. "[W]here the Patent Office has reason to believe that a functional limitation asserted to be critical for establishing novelty in the claimed subject matter may, in fact, be an inherent characteristic of the prior art, it possesses the authority to require the applicant to prove that the subject matter shown to be in the prior art does not possess the characteristic relied on." *Id.*, quoting *In re Swinehart*, 439 F.2d 210, 213 (CCPA 1971).

To overcome a prima facie case of . . . [unpatentability] based on inherency, it is an applicant's burden "to show that the prior did not inherently possess the functionally defined limitations of th[e] claimed apparatus." *Id.*

*Analysis*

In support of patentability, Appellants argue that "the explanation of Figure 3 in Bohorquez says nothing about an offset voltage being provided by the power control 20" (App. Br. 8). However, as noted previously, the Examiner has acknowledged that Bohorquez does not expressly disclose that power control 20 provides an offset voltage. The issue is whether this claim requirement is inherently disclosed by Bohorquez.

In this latter regard, Appellants disagree with the Examiner's finding that the voltages provided by the claimed power regulator and Bohorquez's power control 20 are the same (i.e., an offset voltage) "based on the similar ways they both are provided and their similar functions to drive printing elements through a feedback amplifier" (Ans. 8; *see also* Reply. Br. 2). According to Appellants, "having a feedback amplifier does not itself prove or disclose the operation of the Bohorquez circuit and thus does not establish that Bohorquez teaches or suggests the recited printhead of claim 1 comprising a power regulator and the claimed offset voltage" (Reply Br. 2).

We consider the Examiner's rationale to provide a reasonable basis for believing that the claim 1 function "providing an offset voltage" is inherently practiced by power control 20 in Figure 3 of Bohorquez. Under these circumstances, it is Appellants' burden to show that the prior art power control of Bohorquez does not inherently possess the functionally defined offset voltage limitation of claim 1.

On this record, Appellants have offered no such showing. At best, they have merely alleged without support that the voltages provided by the claimed power regulator and Bohorquez's Figure 3 power control are not the same. Such an allegation is inadequate to carry Appellants' burden of proof.

#### *Conclusions of Law*

Appellants have failed to show that Bohorquez's power regulator (i.e., power control 20 in Figure 3) does not inherently perform the claim 1 function "providing an offset voltage."

Therefore, we sustain each of the § 103 rejections advanced by the Examiner in this appeal.

#### *Order*

Appeal 2009-0722  
Application 10/705,301

The decision of the Examiner is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

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